

IN THE CLAIMS:

1. (Previously Presented) A method for removing acrolein from a process stream comprising
  - (a) providing a process stream comprising acrolein; and
  - (b) reacting said acrolein in the presence of an acid catalyst with a scavenger compound containing a reactable hydroxyl moiety selected from the group consisting of alcohols, diols, glycerol, polyols, phenols, hydroxyl acids, hydroxyl nitriles and hydroxyl esters having a solubility of at least 1% in the process stream to form an acrolein derivative in a refined process stream.
2. (Original) The method of claim 1 wherein said acid catalyst is a solid acid catalyst.
3. (Original) The method of claim 1 wherein said process stream further comprises said acid catalyst.
4. (Original) The method of claim 1 further comprising adding said acid catalyst to said process stream prior to said reaction step (b).
5. (Original) The method of claim 1 wherein said reaction step (b) is conducted at a pH of between 3.0 and 7.0.
6. (Original) The method of claim 4 wherein said acid catalyst is selected from the group consisting of glycolic acid and acetic acid.

7. (Canceled)

8. (Previously Presented) The method claim 1 wherein said process stream further comprises water.

9. (Original) The method of claim 8 wherein said process stream includes 2.0% to 3.0% by weight water at commencement of said reaction step (b).

10. (Original) The method of claim 9 further comprising the step of reducing the water content of said process stream to no more than 0.5% water.

11. (Original) The method of claim 1 wherein said acrolein derivative is an acrolein acetal.

Claims 12-14 (Canceled)

15. (Original) The method of claim 1 further comprising separating said acrolein derivative from said refined process stream.

16. (Original) The method of claim 15 comprising distillation of said refined process stream.

17. (Original) The method of claim 1 wherein said process stream further comprises acrylonitrile.

18. (Original) The method of claim 1 wherein said reacting step is performed in the substantial absence of a cyanide compound.
19. (Original) The method of claim 1 wherein said process stream further comprises acrylic acid.
20. (Previously Presented) A method for removing acrolein from a process stream comprising
- (a) providing a process stream comprising acrolein; and
  - (b) reacting said acrolein with a scavenger compound containing a reactable hydroxyl moiety selected from the group consisting of alcohols, diols, glycerol, polyols, phenols, hydroxyl acids, hydroxyl nitriles and hydroxyl esters having a solubility of at least 1% in the process stream at a pH of between 3.0 and 7.0 to form an acrolein derivative in a refined process stream.

Claims 21 – 39 (Canceled)